

# WARDS MATERIAL SAFETY DATA SHEET

Natural Science Establishment, Inc.  
 397 Vansickle Road  
 St. Catharines, Ontario L2S 3T5  
 Rochester, NY 14692-9012  
**716-359-2502**

MSDS No. 1431  
 Effective Date: January 31, 1999

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	Simulated Anti-Serum	<b>Health</b>	0
<b>Chemical Synonyms</b>	N/A	<b>Fire</b>	0
<b>Formula</b>	N/A	<b>Reactivity</b>	0
<b>Unit Size</b>	15ml, 250ml	<b>HMIS*</b>	
<b>C.A.S. No.</b>	N/A	LEAST	0
		SLIGHT	1
		MODERATE	2
		HIGH	3
		EXTREME	4

**CHEMTREC**  
**800-424-9300**  
 Day 716-226-6177

**NFPA HAZARD RATING**

0	1	2	3	4
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## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Inorganic Salts (Proprietary Information)	6-7%	N/A
Distilled Water	93%	N/A
Food Coloring Mixture FDC Yellow #5	<0.1	N/A
Food Coloring Mixture FDC Blue #1	<0.1	N/A

## SECTION III PHYSICAL DATA

Melting Point (°F)	0°C (32°F)	Specific Gravity (H <sub>2</sub> O = 1)	1 (Water)
Boiling Point (°F)	100°C (212°F)	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Vapor Density (Air=1)	N/A		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	N/A	Flammable Limits in Air % by Volume	Lower: N/A Upper: N/A
Extinguisher Media	Use any media suitable for extinguishing supporting fire.		

## SPECIAL FIREFIGHTING PROCEDURES

Use best for surrounding fire.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

N/A

*WWR, LLC*

*wardsci.com*

*Teacher Resources*

*Chemical Safety*

*Chemical*

D.O.T. Non-regulated

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA

**Threshold Limited Value**

Simulated Anti-A Serum: LD50 Oral Rat 1200mg/kg (in concentrated form)  
 Simulated Anti-B Serum: LD50 Oral Rat 5989mg/kg (in concentrated form)  
 Simulated Anti-Rh Serum: LD50 Oral Rat 1200mg/kg (in concentrated form)

**Effects of Overexposure**

Eye contact may cause irritation. Skin contact may cause irritation. This product may be harmful by ingestion. The full toxicological effects have not been thoroughly investigated. Low toxicity. Exercise appropriate procedures to minimize potential hazards.

## Emergency and First Aid Procedures

**SKIN CONTACT:** Wash thoroughly with water for 15 minutes. **EYE CONTACT:** Flush eyes thoroughly with water, lifting lower and upper eyelids occasionally. If irritation develops or persists, contact physician. **INGESTION:** If conscious, give one or two glasses of water; contact physician.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	Unstable	Conditions to Avoid
	Stable	Excessive temperature or heat.
<b>Incompatibility (Materials to Avoid)</b>	N/A	

**Hazardous Decomposition Products**

Thermal decomposition may produce fumes of carbon dioxide and/or carbon monoxide.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled**

Absorb with vermiculite, paper towels, or other absorbent material. Place in suitable container.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Waste Disposal Method**

Dispose of in sanitary sewer with copious amounts of water.

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

## SECTION IX SPECIAL PRECAUTIONS

**Respiration Protection** None  
**(Specify Type)** None

<b>Ventilation</b>	Local Exhaust	None Needed	Special	No
	Mechanical (General)	None Needed	Other	No

**Protective Gloves** Rubber (butyl/nitrile) Gloves **Eye Protection** Chemical Safety Goggles

Other Protective Equipment: Chemical safety glasses, lab coat, apron, eye wash station in close proximity (within 15 sec. of work station).

## SECTION X SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing**

Storage Code: Green (General). Store in cool, dry place. Wash thoroughly after handling. Keep container tightly closed when not in use.

Keep container tightly closed when not in use.

## Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

For educational use only. Not for clinical or diagnostic use. To be used only with direct supervision of a qualified professional specifically trained in laboratory procedures. Do not take or use internally. Wear protective equipment. Wash hands thoroughly with soap and water after use.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

<b>Revision</b>	No. 1	<b>Date</b>	1/31/99	<b>Approved</b>
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The above information is believed to be correct and represents the best information currently available to us. However, we make no warranty of the merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine suitability of the information for their particular purposes.

## SECTION V HEALTH HAZARD DATA

**Threshold Limited Value**

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 Simulated Anti-B Serum: LD50 Oral Rat 5989mg/kg (in concentrated form)  
 Simulated Anti-Rh Serum: LD50 Oral Rat 1200mg/kg (in concentrated form)

**Effects of Overexposure**

Eye contact may cause irritation. Skin contact may cause irritation. This product may be harmful by ingestion. The full toxicological effects have not been thoroughly investigated. Low toxicity. Exercise appropriate procedures to minimize potential hazards.

## Emergency and First Aid Procedures

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## SECTION VI REACTIVITY DATA

<b>Stability</b>	Unstable	Conditions to Avoid
	Stable	Excessive temperature or heat.
<b>Incompatibility (Materials to Avoid)</b>	N/A	

**Hazardous Decomposition Products**

Thermal decomposition may produce fumes of carbon dioxide and/or carbon monoxide.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled**

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## SECTION VIII SPECIAL PROTECTION INFORMATION

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Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

## SECTION IX SPECIAL PRECAUTIONS

**Respiration Protection** None  
**(Specify Type)** None

<b>Ventilation</b>	Local Exhaust	None Needed	Special	No
	Mechanical (General)	None Needed	Other	No

**Protective Gloves** Rubber (butyl/nitrile) Gloves **Eye Protection** Chemical Safety Goggles

Other Protective Equipment: Chemical safety glasses, lab coat, apron, eye wash station in close proximity (within 15 sec. of work station).

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 397 Vansickle Road  
 St. Catharines, Ontario L2S 3T5  
 815 Fiero Lane  
 San Luis Obispo, CA 93403-5010  
**716-359-2502**

MSDS No. 1430  
 Effective Date: January 31, 1999

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	Simulated Blood	<b>Health</b>	1
<b>Chemical Synonyms</b>	N/A	<b>Fire</b>	0
<b>Formula</b>	Mixture	<b>Reactivity</b>	0
<b>Unit Size</b>	5ml, 60ml, 1L	<b>HMIS*</b>	
<b>C.A.S. No.</b>	Mixture	LEAST	0
		SLIGHT	1
		MODERATE	2
		HIGH	3
		EXTREME	4



**800-424-9300**  
 Day 716-226-6177

**NFPA HAZARD RATING**  
 LEAST SLIGHT MODERATE HIGH EXTREME

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Inorganic Salts (Proprietary Information)	0-8%	N/A
Inert Microcomponents (Proprietary)	<0.1%	N/A
Food Coloring Mixture: FDC #40 and FDC #3	<0.1%	N/A
Distilled Water CAS 7732-18-5	94.0%	N/A

## SECTION III PHYSICAL DATA

Melting Point (°F)	0°C (32°F)	Specific Gravity (H <sub>2</sub> O = 1)	1 (Water)
Boiling Point (°F)	100°C (212°F)	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (Butyl Acetate = 1)	<1
Vapor Density (Air=1)	N/A		
Solubility in Water	Complete		
Appearance & Odor	Red color; odorless		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	N/A	Flammable Limits in Air % by Volume	Lower N/A Upper N/A
Extinguisher Media	Use any media suitable for extinguishing supporting fire.		

## SPECIAL FIREFIGHTING PROCEDURES

Use best for surrounding fire.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

N/A

## SECTION V HEALTH HAZARD DATA

### Threshold Limited Value

The full toxicological properties of this material have not been thoroughly investigated.

**Effects of Overexposure** Mr. Smith (Type A): LD50 Oral Rat 264mg/kg (in concentrated form). Mr. Jones (Type B): LD50 Oral Rat 3900mg/kg (in concentrated form). Mr. Green (Type AB): LD50 Oral Rat 264mg/kg (in concentrated form). Ms. Brown (Type O): N/A. Eye contact may cause irritation. Skin contact may cause irritation. This product may be harmful by ingestion. The full toxicological effects have not been investigated.

### Emergency and First Aid Procedures

**SKIN CONTACT:** Flush with large amounts of water. **EYE CONTACT:** Flush eyes thoroughly with water, lifting lower and upper eyelids occasionally, if irritation develops or persists, contact physician. **INGESTION:** If conscious, give one or two glasses of water, contact physician.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>	<b>Conditions to Avoid</b>
	Stable	Excessive temperature and heat
<b>Incompatibility (Materials to Avoid)</b>	N/A	
<b>Hazardous Decomposition Products</b>	Thermal decomposition may produce carbon dioxide and/or carbon monoxide.	
<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>	
<b>May Occur</b>	<b>Will Not Occur</b>	N/A
	X	

## SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Absorb with vermiculite, paper towels, or other absorbent material. Place in suitable container.

### Waste Disposal Method

Dispose of in sanitary sewer with large amounts of water. Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection None should be required in normal laboratory use.

<b>Ventilation</b>	<b>Local Exhaust</b>	<b>None Needed</b>	<b>Special</b>	<b>No</b>
	<b>Mechanical (General)</b>	<b>None Needed</b>	<b>Other</b>	<b>No</b>

**Protective Gloves** Rubber (butyl/nitrile) Gloves **Eye Protection** Chemical Safety Goggles

**Other Protective Equipment** Lab coat, apron, eye wash station in close proximity (within 15 sec. of work station).

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Storage Code: Green (General). Store in cool, dry place.

Keep container tightly closed when not in use. Read label on container before using. Do not wear contact lenses when working with chemicals.

### Other Precautions

For educational use only. Not for clinical or diagnostic use. To be used only with direct supervision of a qualified professional specifically trained in laboratory procedures. This is not real blood. Do not take or use internally. Do not ingest. Wash hands thoroughly with soap and water after use. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 1 Date 1/31/99 Approved

Chemical Safety Coordinator

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